

CLAIMS

1. A method for assigning a remote unit a channel within a wireless communication system, the method comprising the steps of:
- 5 receiving a plurality of uplink transmissions from a plurality of remote units involved in a group call;
- determining the remote unit from the plurality of remote units, wherein the remote unit is determined based on an energy of the remote unit's uplink transmission; and
- 10 assigning the remote unit a high-data-rate uplink channel based on the determination.
2. The method of claim 1 wherein the step of receiving the plurality of uplink transmissions from the plurality of remote units comprises the step of
- 15 receiving a plurality of traffic channel transmissions from the plurality of remote units.
3. The method of claim 1 wherein the step of determining the remote unit comprises the step of determining the remote unit from the plurality of remote units, wherein the remote unit has a highest energy uplink transmission.
- 20 4. The method of claim 1 wherein the step of assigning the remote unit the high-data-rate channel comprises the step of assigning the remote unit a supplemental channel.
- 25 5. The method of claim 1 further comprising the steps of:
- receiving data from the remote unit via the high-data-rate channel; and
- broadcasting the data to the plurality of remote units via a high-data-rate downlink channel.
- 30 6. The method of claim 5 further comprising the steps of:
- receiving a second plurality of uplink transmissions from a plurality of remote units;

determining a second remote unit from the plurality of remote units, wherein the remote unit is determined based on an energy of the remote unit's uplink transmission; and

5 assigning the remote unit the high-data-rate uplink channel based on the determination.

7. A method for assigning a remote unit a channel within a wireless communication system, the method comprising the steps of:

10 receiving a plurality of uplink communication transmissions from a plurality of remote units;

determining, from the plurality of uplink transmissions, a remote unit having a highest energy transmission; and

15 assigning the remote unit a second uplink communication signal based on the determination.

8. The method of claim 7 further comprising the steps of:

receiving data from the remote unit via the second uplink communication signal; and

20 broadcasting the data to substantially all of the plurality of remote units.

9. The method of claim 7 wherein the step of receiving a plurality of uplink communication transmissions comprises the step of receiving a plurality of uplink traffic channel transmissions.

25 10. The method of claim 7 wherein the step of assigning the remote unit a second uplink communication signal comprises the step of assigning the remote unit a high-speed data channel.

11. An apparatus comprising:

30 channel circuitry having a plurality of uplink communication signals, transmitted from a plurality of remote units, as an input; and

a logic unit having a channel assignment command as an input, wherein the channel assignment command is a command to assign a remote unit, from the plurality of remote units, a high-speed data channel based on the energy of the remote unit's uplink communication signal.

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12. The apparatus of claim 11 wherein the channel circuitry is traffic channel circuitry.

5 13. The apparatus of claim 11 wherein the high-speed data channel is a supplemental channel.

14. The apparatus of claim 11 wherein the remote unit has a highest energy of the plurality of remote units.

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